ABSTRACT

The present invention relates generally to photolithographic systems and methods, and more particularly to systems and methodologies that facilitate the reduction of line-edge roughness (LER) and/or standing wave expression during pattern line formation in an integrated circuit. Systems and methods are disclosed for retaining a target critical dimension (CD) of photoresist lines, comprising a non-lithographic shrink component that facilitates mitigating LER and/or standing wave expression, wherein the shrink component is employed to heat a particular resist to the glass transition temperature of the resist to effectuate mitigation of LER and/or standing wave expression. Additionally, by heating the resist to its glass transition temperature, the systems and methods of the present invention effectively impede deviation from a desired target critical dimension.